

**Abstract of the Disclosure**

A semiconductor device includes an IC die configured to reduce post-fabrication damage to the device. The IC die is formed such that at least a portion of one or more perimeter edges of the die are beveled by an etching process. The semiconductor device may include a plurality of IC dies, at least one of the IC dies being separated from the semiconductor device by forming one or more v-shaped grooves in an upper surface of the device, the v-shaped grooves defining perimeter edges of the at least one IC die. A back surface of the semiconductor device is removed until at least a portion of the v-shaped grooves are exposed. When the IC die is separated from the semiconductor device in this manner, a sidewall of each of the v-shaped grooves forms a beveled perimeter edge of the separated IC die.